Verizon New England Inc.
d/b/a Verizon Massachusetts

Commonwealth of Massachusetts

D.T.E. 01-20 (Part A)

Respondent: Michael J. Anglin
Title: Director – Service Costs

REQUEST: AT&T Communications of New England, Inc., Set #14

DATED: May 31, 2001

ITEM: ATT 14-39 State whether the Verizon-MA cost study assumes placement of multiple smaller feeder cables in place of a larger feeder cable that is capable of serving forecasted demand. If the answer is yes, state whether it is Verizon's position that this practice represents the most efficient means of constructing outside plant?

REPLY: The Verizon MA cost study does not assume placement of an ultimate size feeder cable. The cost study assumes the feeder cable network depicted in the outside plant survey data. Feeder cable configuration based on the outside plant survey data reflects feeder cable relief over time as it relates to the respective feeder route demand in the survey.

VZ # 468

Verizon New England Inc.
d/b/a Verizon Massachusetts

Commonwealth of Massachusetts

D.T.E. 01-20 (Part A)

Respondent: Michael J. Anglin
Title: Director – Service Costs

REQUEST: AT&T Communications of New England, Inc., Set #15

DATED: June 1, 2001

ITEM: ATT 15-7 State whether the power being booked to the digital switch 2212 account includes all power for digital circuit equipment. If the answer is no, explain how the power is identified and calculated for digital circuit equipment separately from digital switching.

REPLY: See Verizon MA's response to Information Request CC 2-35.

VZ # 492

Verizon New England Inc.
d/b/a Verizon Massachusetts

Commonwealth of Massachusetts

D.T.E. 01-20 (Part A)

Respondent: Michael J. Anglin
Title: Director – Service Costs

REQUEST: AT&T Communications of New England, Inc., Set #16

DATED: June 7, 2001

ITEM: ATT 16-3 Provide (in both hard copy and electronic format) all workpapers, support and underlying documentation for the inputs to LCAM as documented in "Section 5 – Study Inputs" of "Part B-1 Unbundled Loops." Specifically, provide the basis and support for:

(a) the constant factor values shown in Section 5.2 Study Factors;

(b) the cable lengths shown in Section 5.3 Thresholds;

(c) the cable investment (material and EF&I) and the "Pct each size" for each type of cable shown in Section 5.5 Cable Investments;

(d) the COT Investment and the COT Plug-in Investment per circuit shown in Section 5.6 DLC Electronics – Central Office End;

(e) the Enclosure and Hardware Investments (Material and Install) shown in Section 5.7 DLC Electronics – Remote Terminal End;

(f) the investments per pole (35, 40 and 45 foot), the adjustment for multiple sheaths, the average span length between poles and the working ratio shown in Section 5.8 Pole Investment;

(g) the drop and distribution terminal investments (aerial, buried, and building) and the average working lines shown in Section 5.9 Other Distribution Investments; and all of the wire center-related values in Sections 5.10, 5.11 and 5.12.

REPLY:

a. The factor values in Subsection 5.2, Study Factors, include various categories of input. The investment input values have been grouped and the support data, by grouping, is included in the following text and in the attached referenced files.

REPLY: ATT 16-3
(cont'd)

LOOP STUDY:

Factor values with a 1 or 0 are selection options to include or exclude the option identified. The options selected are in line with the constructs identified in the filed panel testimony. Capacity values of service wire and NIDS are the standard sizes offered by the vendors. Investment development associated with the DSX-1 cross connect and the HDSL equipment is included in Attachment 1. Investment development associated with the NID and Smartjack is included in Attachment 2. Common equipment and plug-in equipment utilization support is included in the response to Data Request AT&T 14-44. Conduit utilization is based on 2/3 of a conduit formation being occupied and 2 of every 3 innerducts being occupied (2/3 x 2/3 = .4444). The percent of equipment in the subscriber pair gain accounts is the relationship of placement data in FRC 257C and FRC 758C. It is based on regional equipment placement data in the year 2000 (refer to Part G-3, Investment Loading Factors, Workpaper, Page 6 of 10 and Page 9 of 10, in the filed cost study). The percentage of remote terminals located on customer premises is based on Engineering judgement. The distribution of poles, by length, is based on ECRIS data. The percent of a pole shared with other utilities development is included in the Verizon MA's responses to Information Request AT&T 2-49 and AT&T 14-30. Objective utilization and Broadband utilization is based on Engineering judgement. The development of Land and Building ratios is included in Part G-3 (Investment Loading Factors), Exhibit, Page 1 of 1, in the filed cost study.

ELECTRONICS MODULE:

The remote terminal configuration in the study is assumed to be bidirectional. Add Drop configurations reduce the central office electronics investment by using one central office terminal to terminate more than one remote terminal. The Fiber Capacity Adjustment factor reduces the working lines per fiber strand in Add-Drop systems, compared to Point to Point systems. The factor application levelizes utilization in a chain of remote terminals working on one set of fibers by applying the average of the cumulative demand in the terminals along the chain to the working lines per fiber. For example, five remote terminals in an Add Drop unidirection system (Litespan Guideline) with equal demand in each remote terminal will have an adjustment factor of .6 or the average of the cumulative demand in each terminal along the chain (1.0+.8+.6+.4+.2)/5. The Add Drop bidirection system assumes the same five remote terminals, but in an

REPLY: ATT 16-3
(cont'd)

East-West configuration (East includes three and West includes two). The levelized East remote terminal demand is .666 or (1.0+.666+.333)/3. The levelized West remote terminal demand is .75 or (1.0+.5)/2. The levelized bidirectional demand factor is the average of .666 and .75 or .7. This factor is applied to the working lines per fiber to recognize the working lines are shared over five remote terminals instead of only one. Investment development associated with electronics in the central office and the remote terminal is included in Verizon MA's response to Information Request AT&T 2-28. GR303 concentration ratio, capacity data, threshold data, and distribution length are Engineering estimate.

PLANT CHARACTERISTICS MODULE:
Lines per terminal, maximum distribution cable length, conduit data, and SAI fill are based on Engineering estimates. The contract cost of placing a pedestal is booked to the account code of the pedestal and included in the pedestal investment cost.

b. See Verizon MA's response to Information Request AT&T 4-25.

c. For the cable investment, see Verizon MA's response to Information Request CC 2-38. The "Pct each size" is included under tab "Copper Cable" in the engineering survey data filed in Verizon MA's response to Information Request AT&T 14-33.

d. See Verizon MA's response to Information Request AT&T 2-28.

e. See Verizon MA's response to Information Request AT&T 2-28

f. For the investments per pole, see Verizon MA's response to Information Request CC2-38. The average span length between poles is discussed in Verizon MA's response to Information Request AT&T 2-23. The "Multi Sheath Adjustment Factor", included in Subsection 5.8 of the LCAM study, was provided by the Outside Plant Engineering Department as an estimate of the portion of poles, by density cell, with two cable attachments. The associated pole investment within the study is reduced proportionately e.g., the Metropolitan density zone pole span is 120 feet and assumes 90% of the poles have two cable attachments. The resulting pole investment is reduced as follows: .9(120/2) + .1(120/1) = 66, the resulting adjustment is 66/120, or 55%. The

REPLY: ATT 16-3
(cont'd)

unit pole investment in the study reflects a 45% reduction based on multiple cable attachments. The "Working Ratio" by density cell is applied to the corresponding working lines by density cell in the outside plant survey to develop the total working lines by density cell. Total working lines by density cell are used to develop the statewide weighted average values. The development of "Working Ratio" is included in Attachment 3 to this data request.

g. The aerial and buried drop wire investment is based on ECRIS data. Drop wire is considered an exempt item and the investment value includes only labor. The material price is included in the labor rate. The development of the distribution terminal investments is shown in Verizon MA's response to Information Request CC 2-38. A description of the column headings in Sections 5.10, 5.11, and 5.12 is included in the response to Information Request AT&T 16-4. The support for feeder and distribution cable fill development (Subsection 5.10) is included in Verizon MA's response to Information Request AT&T 14-44. The main distributing frame investment (Subsection 5.10) is taken from the switch cost study. It is a mix of main distributing frame investment in 5 ESS and DMS switch technologies. Frequency of occurrence, cable length, and utilization (Subsection 5.11) is taken from the engineering survey data. Main line and subsidiary conduit investment per foot development (Subsection 5.11) is included in the attached file (maconduitdte1-20). Frequency of occurrence (Subsection 5.12) is taken from the engineering survey data. Cable length and cable size (Subsection 5.12) is based on an Engineering assumption. Average working lines per terminal (Subsection 5.9) is developed in Attachment 4 to this response. The source of this data is the engineering survey.

Verizon New England Inc.
d/b/a Verizon Massachusetts

Commonwealth of Massachusetts

D.T.E. 01-20 (Part A)

REQUEST: AT&T Communications of New England, Inc., Set #16

DATED: June 7, 2001

ITEM: ATT 16-7 State whether Verizon has any plans through the end of 2002 to provision any DSL service in Massachusetts via NGDLC. If the answer is yes, provide details of those plans.

REPLY: Please see Verizon MA's response to CC 2-44.

VZ # 508